

In the Claims

1-30 (cancelled).

31 (currently amended). An isolated molecule which comprises an amino acid sequence that binds to the hepreceptor, wherein said hepreceptor binding sequence consists of at least 5 consecutive amino acids of SEQ ID NO. 29 is a peptide comprising an amino acid sequence of at least 5 amino acids identical to a portion of amino acids 333-373 of the Hepreceptor.

32 (currently amended). The molecule, according to claim 31, which comprises a sequence wherein the hepreceptor binding sequence consists of at least 5 consecutive amino acids identical to a portion of amino acids 333-355 of the Hepreceptor located at positions 1-13 in SEQ ID NO.:29.

33 (currently amended). The molecule, according to claim 32 31, wherein said identical portion is hepreceptor binding sequence consists of from 5 to 14 between 5 and 13 amino acids.

34 (currently amended). An isolated molecule which comprises an amino acid sequence that binds to the hepreceptor, wherein said hepreceptor binding sequence consist of an amino acid sequence The molecule, according to claim 32, which comprises an amino acid sequence selected from the group consisting of:

MREKEELMLRLQDY<sub>(p)</sub>XaaEEKTKKAERELSEQIQRALQ (SEQ ID NO. 2);  
EREKE (SEQ ID NO. 16);  
EREKEQMMREKEEL (SEQ ID NO. 17);  
KEELM (SEQ ID NO. 18);  
KEELMLRLQDYEE (SEQ ID NO. 19);  
KEELMLRLQDYpEE (SEQ ID NO. 20);  
EELMLRLQDYEE (SEQ ID NO. 21);

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EELMLRLQDYpEE (SEQ ID NO. 22);  
ELMLRLQDYEE (SEQ ID NO. 23);  
ELMLRLQDYpEE (SEQ ID NO. 24);  
MLRLQ (SEQ ID NO. 25);  
QDYEE (SEQ ID NO. 26); and  
QDYpEE (SEQ ID NO. 27).

35 (previously cancelled).

36 (currently amended). The molecule, according to claim 34, which ~~comprises~~ consists of:  
MREKEELMLRLQDY<sub>(p)</sub>XaaEEKTKKAERELSEQIQRALQ (SEQ ID NO. 2).

37-49 (cancelled).

50 (currently amended). The molecule, according to claim 34, which ~~comprises~~ consists of:  
EREKE (SEQ ID NO. 16).

51 (currently amended). The molecule, according to claim 34, which ~~comprises~~ consists of:  
EREKEQMMREKEEL (SEQ ID NO. 17).

52 (currently amended). The molecule, according to claim 34, which ~~comprises~~ consists of:  
KEELM (SEQ ID NO. 18).

53 (currently amended). The molecule, according to claim 34, which ~~comprises~~ consists of:  
KEELMLRLQDYEE (SEQ ID NO. 19).

54 (currently amended). The molecule, according to claim 34, which ~~comprises~~ consists of:  
KEELMLRLQDYpEE (SEQ ID NO. 20).

55 (currently amended). The molecule, according to claim 34, which ~~comprises~~ consists of: EELMLRLQDYEE (SEQ ID NO. 21).

56 (currently amended). The molecule, according to claim 34, which ~~comprises~~ consists of: EELMLRLQDYpEE (SEQ ID NO. 22).

57 (currently amended). The molecule, according to claim 34, which ~~comprises~~ consists of: ELMLRLQDYEE (SEQ ID NO. 23).

58 (currently amended). The molecule, according to claim 34, which ~~comprises~~ consists of: ELMLRLQDYpEE (SEQ ID NO. 24).

59 (currently amended). The molecule, according to claim 34, which ~~comprises~~ consists of: MLRLQ (SEQ ID NO. 25).

60 (currently amended). The molecule, according to claim 34, which ~~comprises~~ consists of: QDYEE (SEQ ID NO. 26).

61 (currently amended). The molecule, according to claim 34, which ~~comprises~~ consists of: QDYpEE (SEQ ID NO. 27).

62 (currently amended). A method for upregulating the immune system in a patient with cancer, HIV, or a bacterial infection, wherein said method comprises administering, to a patient in need of such upregulation with cancer, HIV, or a bacterial infection, an effective amount of a molecule which comprises an amino acid sequence that binds to the hepreceptor, wherein said hepreceptor binding sequence consists of at least 5 consecutive amino acids of SEQ ID NO. 29; wherein the administration of said molecule results in upregulation of the immune system in the patient which binds to the Hepreceptor.

63 (cancel).

64 (cancel).

65 (currently amended). The method, according to claim 64, wherein said hepreceptor binding sequence molecule comprises between has between 5 and 13 14 amino acids which are identical to the Hepreceptor

66 (currently amended). The method, according to claim 64, wherein said molecule comprises an amino acid sequence selected from the group consisting of :

~~AREEKHQKQLERQQLETEKKRRETVEREKEQM (SEQ ID NO. 1);~~

~~MREKEELMLRLQDY<sub>(p)</sub> XaaEEKTKKAERELSEQIQRALQ (SEQ ID NO. 2);~~

~~TEKKR (SEQ ID NO. 3);~~

~~TEKKRRET (SEQ ID NO. 4);~~

~~TEKKRRETVER (SEQ ID NO. 5);~~

~~KKRRE (SEQ ID NO. 6);~~

~~KKRRETVE (SEQ ID NO. 7);~~

~~KKRRETVERE (SEQ ID NO. 8);~~

~~KKRRETVEREK (SEQ ID NO. 9);~~

~~KKRRETVEREKE (SEQ ID NO. 10);~~

~~KRRETVER (SEQ ID NO. 11);~~

~~KRRETVEREK (SEQ ID NO. 12);~~

~~KRRETVEREKE (SEQ ID NO. 13);~~

~~RRETVE (SEQ ID NO. 14);~~

~~RETVEREKE (SEQ ID NO. 15);~~

~~EREKE (SEQ ID NO. 16);~~

~~EREKEQMMREKEEL (SEQ ID NO. 17);~~

~~KEELM (SEQ ID NO. 18);~~

~~KEELMLRLQDYEE (SEQ ID NO. 19);~~

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KEELMLRLQDYpEE (SEQ ID NO. 20);  
EELMLRLQDYEE (SEQ ID NO. 21);  
EELMLRLQDYpEE (SEQ ID NO. 22);  
ELMLRLQDYEE (SEQ ID NO. 23);  
ELMLRLQDYpEE (SEQ ID NO. 24);  
MLRLQ (SEQ ID NO. 25);  
QDYEE (SEQ ID NO. 26); and  
QDYpEE (SEQ ID NO. 27).

67-76 (withdrawn).